

Client's ref.: File: 0619-4464US/Final/Mulder 09/53359/

ABSTRACT of the DISCLOSURE

Disclosed is an ISFET comprising a H^+ -sensing membrane consisting of RF-sputtering a-WO $_3$. The a-WO $_3$ /SiO $_2$ -gate ISFET of the present invention is very sensitive in aqueous solution, and particularly in acidic aqueous solution. The sensitivity of the present ISFET ranges from 50 to 58 mV/pH. In addition, the disclosed ISFET has high linearity. Accordingly, the disclosed ISFET can be used to detect effluent.